

ABSTRACT

This invention describes a process to synthesize water based coating composition having polyurethane and vinyl polymers in the same backbone, which can be used as topcoat in leather. Polyurethane having iniferter groups are synthesized which is then used to incorporate vinyl monomers. The ionic groups are incorporated into PU by selecting vinyl monomers having carboxyl group. The controlled addition of the vinyl monomers is successfully achieved. Finally, it is dispersed in water to obtain the PU dispersion. The suitability of the product for coating application is evaluated on leather. The coating meets desirable protective and aesthetic demands.